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ABSTRACT

To revise its strategic plan for vocational education and training (VTE), the Office of Training and Further Education (OTFE) in the state of Victoria (Australia) conducted a three-stage review of strategic directions of VTE in the state. In stage 1, the internal and external environments were scanned to identify major change factors and themes. Stage 2 involved the preparation of alternative views of the future under different assumptions (scenarios) to give the OTFE the background information needed to develop a vision and strategies, and stage 3 involved the development of strategies for VTE's future. The environmental scan included consideration for the following external and internal forces: recurrent resources, demography, household income, participation in education, the labor force, demand for training, competency-based training, skills transfer, funding sources, capital, staffing, and new technology. The environmental analysis and scan resulted in two scenarios for 10 years from now. According to the "clever country" scenario, the economy's growing complexity and pressures on governments, enterprises, and individuals will result in buoyant training and further education. In accordance with the new balance scenario, the changing nature of work and society will lead governments, enterprises, and individuals to meet their needs through strategies diminishing the demand for formal training and education. (MN)

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A Vision for **Training** and **Further** **Education** in Victoria

scenarios

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Enquiries regarding both publications should be directed to:

Strategic Planning and Research Division
Office of Training and Further Education
Level 3
2 Treasury Place
Melbourne 3000

Telephone: +61 3 9637 2657

Fax: +61 3 9637 2480

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**Can we see only when a
crisis opens our eyes?**

**Can we see only what we have already
experienced?**

**Can we see only what
is relevant to our view
of the future?**

**Can we see what is
emotionally difficult to see?**

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Part 1 Introduction

It is several years since the State Training Board (STB) adopted the strategic plan, *Strategic Directions in Vocational Education and Training* in 1994, and the STB and Adult, Community and Further Education Board (ACFEB) adopted the *Adult, Community and Further Education State Plan 1996-1998*.

Since the adoption of those plans, change has continued apace. There have been changes in government, in organisational structures, in the local and world economy and, equally importantly, many of the things which the Boards set out to do have been done.

Nowadays approaches to strategy making and strategic planning operate under conditions of extreme uncertainty. The future appears much less certain than it used to appear. Uncertainty and ambiguity characterise our lives more than ever. There are many gurus offering us plenty of solutions to our problems but no agreed criteria on how to select them, how to sort the wheat from the chaff.

And yet decisions have to be made with far-reaching consequences into the future. People still have to decide whether to make investments in this activity or that. This dilemma is at the core of strategy making and planning today.

No one can know the future. But people can:

- sort out what sort of future they want for themselves
- test that against what might plausibly happen in the future
- develop flexible strategies which do not unnecessarily pre-empt future decisions.

The planning process adopted by the Office of Training and Further Education (OTFE) has been based on this approach.

A three-stage review of strategic directions was carried out.

- Stage One involved scanning the internal and external environment to identify major change factors and themes. The outcomes of this analysis are summarised in Part 2 Change Drivers. The detailed environmental scan is contained in Part 4 Environmental Analysis.
- Stage Two involved the preparation of alternative views of the future under different assumptions (scenarios) to provide a background for the Board and the OTFE to develop a vision and strategies. The scenarios are presented in Part 3 Scenarios.
- Stage Three involved the development of strategies for the future presented in *A Vision for Training and Further Education in Victoria – Vision Statement*, State Training Board, June 1998.

Part 2 Change Drivers

As the twenty first century approaches, rapid and fundamental changes are being experienced in our social structures and economy. The rate of change is expected to continue into the new millennium. The Victorian training and further education system can be reasonably certain about many of the change drivers and where they will lead; so many of the new and different demands that will be placed on the system can be anticipated. These pre-determined change drivers are reflected in both scenarios for the future that follow in Section 3 Scenarios.

There are also change drivers that are more uncertain and are subject to different interpretations. Some of these uncertainties are more important for the future than others. It is these critical uncertainties that give rise to different scenarios of the future.

The analysis of our environment has provided information on factors which might be drivers of change in TAFE in the longer term, and identified pre-determined elements and those that are crucial and yet most uncertain.

2.1 Pre-determined Elements

In the next decade Victoria will:

- experience moderate population growth, lower than for Australia as a whole
- have an ageing population
- grow in cultural and ethnic diversity
- experience economic growth but a subdued labour market
- see a widening gap between high and low income households
- experience technological and structural change continuing to dominate people's working lives. In the future, industry, enterprises and the workforce will be shaped by:
 - the gathering momentum of globalisation and trade liberalisation
 - the wide diffusion of information and technology
 - the large and continuing shift in employment from manufacturing to services
 - the increased importance of knowledge and skills in the production of services – changing the skills profile of jobs
 - the fact that people will change careers, occupations and jobs more frequently throughout their working lives
 - the increase in casual and part-time employment
 - the rapid turnover of goods and services and, with people changing jobs more often, a more frequent renewal of skills and knowledge
 - the increase in the number of well educated workers
 - the disappearance of many unskilled jobs and a changing distribution of

employment opportunities

- the increasing number of people working on flexible contracts and other working arrangements.

These changes will result in the emergence of new values and patterns of work and leisure. In our community there will also be major changes in the character of our social conditions. There is already evidence of increasing polarisation between those that do and do not have jobs, and across race, gender and generational boundaries. It will be harder for individuals and enterprises to understand and function successfully with the increasing market complexity.

The impact of these certain drivers on training and further education in Victoria will be substantial. They act as a backdrop to our scenarios for the future.

2.2 Uncertain Elements

The change drivers that are most critical for training and further education, and are most uncertain, centre around the extent to which governments, enterprises or individuals are prepared to pay for the training or further education which will, in turn, depend on:

- broad perceptions of its 'value' – in economic, social or personal terms
- the level of expectations of a real return on any expenditure or investment
- political and social pressures.

In turn these interrelated factors will be influenced by:

- the levels and pattern of demand – who will pay and how
- community values, aspirations, needs, attitudes and preferences and the way they manifest themselves in determining views about what is 'useful knowledge' for training and further education
- the nature of the use of technology in the delivery of training and further education and the capacity of delivery systems to adapt quickly enough.

The following scenarios are constructed within the dimensions of these critical uncertainties.

Part 3 Scenarios

3.1 Introduction

Scenarios are narratives or stories about **plausible** alternative futures. They help us to think about our current decisions which will have future implications and to plan strategies for the future. Scenarios provide a basis for people to discuss the future in a more disciplined way and to provide an ongoing reference point for decision making and planning.

Scenarios are not predictions or strategies. Unlike forecasting or market research, scenarios present alternative images instead of extrapolating current trends from the present.

The use of scenarios is a way of rehearsing the future. Decisions which have been pre-tested against a range of what fate may offer are more likely to stand the test of time. Ultimately the end result of scenario planning is not a more accurate picture of tomorrow but better decisions today.

Two scenarios – *The Clever Country* and *The New Balance* – derived from the environmental analysis and a series of workshops, are presented below. They are written from the perspective of 10 years from now.

3.2 Scenario: The Clever Country

The impact of the growing complexity in the economy and the pressures on governments, enterprises and individuals has resulted in buoyant training and further education.

Because of the persistently high levels of unemployment and the community's anger over the issue, successive governments have tried to restructure the economy to encourage productivity, to increase workforce flexibility and to ameliorate the unemployment. After the year 2000, programs like 'work for the dole' gave way to others aimed at skilling people to adapt to multiple jobs and career paths and periods of under-employment. Programs to encourage people with low participation rates, such as those with a language background other than English, to enter into training and further education were supported. Governments, banks and financial institutions made flexible loan options available to the public for the purchase of education and training. In 2003 the Government also raised the age of compulsory education to 18 years. These approaches have had mixed success. Overall unemployment rates are falling, albeit slowly, but there are still few jobs for youth.

Governments in a number of policy statements have embraced the concept and the rhetoric of the 'clever country' and are willing to invest public money in training to more optimum levels through the tax system, quasi-vouchers and employer incentives.

Throughout the last decade demand for re-skilling the workforce has remained buoyant as industry and enterprises struggled with global pressures, local competitive conditions and the impact of the new technologies on work practices. Industry, enterprises and the workforce have been restructuring in response to the wide diffusion of information and technology and the increased importance of knowledge and skills in the production of services. Still, competition has been fierce and many firms have not been able to stay afloat.

Research shows that those enterprise managers who value training and were willing to invest in the skills development of their workers are now getting a return on their investment.

More and more businesses are now willing to take that investment risk.

Many workers have been able to grow with and adapt to the changes, but there still remains a significant number who missed out on their education and are unable to compete for jobs.

For those people who do have jobs, their working life has also been dominated by structural and technological change. The world of work is now highly competitive. It is elusive to many and transient for the rest. Most jobs are now term-contracted, casual or part-time. People change careers, occupations and jobs frequently. Many unskilled jobs have disappeared over the past 10 years. Workers have increasingly had to become skilled in the use and development of technology and in adapting to change in their workplaces. Workers now expect to frequently renew their skills and knowledge to ensure that they remain competitive and employable. These fragmented work patterns and skill demands have resulted in the emergence of new values toward work and leisure.

What has persisted is a community belief that community, personal and work interests can be secured through training and further education. Enterprises and workers demand high quality training, delivered in a flexible and timely manner at a competitive cost. They are frequent users, who are prepared to pay more to get more. Workers and those outside of work also come to training and further education for personal development skills and to address their need to improve their own, their family's and the community's capacity to continuously adapt to social change.

Continuous learning is now a necessity to improve life chances. In 2003 the Government introduced the *Learning throughout Life Act* to guarantee citizens access to learning opportunities, at any time in their lives, to acquire new skills for life or work. It was expected that the training and further education system would be a major pathway for post-school learners.

Because of recently emerging perceptions about the system's performance against expectations, training and further education is under closer scrutiny and increasing pressure to clearly demonstrate job-related and individual/community development outcomes.

New technologies have radically altered the way governments, enterprises and individuals do their business and learn. At the same time there has been a worldwide struggle between public, political and commercial interests over the control of information and communications technology. Australian Governments have been attempting to support and protect local markets, including training markets, by laying down rules that set standards and regulate media ownership and the use of technology in Australia. This has fostered partnerships between private enterprise and providers to invest in information and learning technology infrastructure in order to improve public access and use of training and further education. The use of multi-media technology in Victoria's training and further education providers is growing and has largely replaced the old institutional infrastructure. However, many small private providers have had difficulty with paying for staff skilled in the use of new learning technology and are finding the survival in the big pond tough.

Managers and teachers in most of the mega-Institutes have found the use of multi-media profitable, and that it can be more efficient and cheaper than traditional methods. The technology also provides the means for rapid responses to customer needs and the capacity to customise training to a high degree. Some providers have also reached into new and strong markets.

People with diverse aspirations are finding that the new learning technologies are providing them with the means to enter into a wider range of courses, many of which are customised short courses, at a large number of electronic sites. Many customers are able to get access to training and further education from home, work and in the community at times that suit them. However, the technology has also created a new under-class and paradoxically is reducing access to learning for the 'information poor'.

Learners have 'global' access to training and further education and, despite Australian Governments' attempts to protect local markets, European and American controlled training and education institutes are attracting significant numbers of Australian students. The Australian training market is also being inundated with curriculum and learning materials from other cultures.

Much of the Victorian system has been able to compete successfully in international markets. Vocational education providers are also attracting overseas students to their World Wide Web sites for training, but they are fickle. Local students who are attracted to overseas courses via the Web are also demanding complementary personal tuition by local providers. However, as in other industries, competition in training and further education is fierce and two of the TAFE Institutes that were privatised in 2002 have recently gone to the wall.

3.3 Scenario: The New Balance

The changing nature of work and society has led governments, enterprises and individuals into meeting their needs through strategies which diminish the demand for formal training and further education.

The Government announced in its 2008/09 budget what had been expected for some time – that work for the dole was to be compulsory for all dole recipients. This follows extensive Cost/Benefit Output Analysis of a range of alternative measures, including training and further education, to combat joblessness and its attendant social pathologies. Most of the strategies aimed at improving unemployment through the supply-side were found to be failing or have very modest positive effects but, more importantly, were generally perceived to be expensive failures.

In making this move, the Government is merely keeping in step with a community that has successfully adjusted to the reduction in the number of full-time jobs, with many people seeking a new balance in their lives between economic and other imperatives. People no longer believe that more training leads to jobs, and there is widespread acceptance of the benefits to the individual and society generally of the unemployed making a substantial contribution to community welfare in return for financial support. This is in line with a long-standing requirement that has significantly strengthened consumer power – that students in any form of post-compulsory education (21+) must meet at least 50% of the full average opportunity cost (including recurrent and capital) of publicly funded courses.

In line with these developments, publicly funded training has diminished since the heady days of the 1990s significantly eroding the total TAFE funding, 75% of which is now derived from fees from customers.

Training levels in formal accredited programs are threatening the continued viability of these programs as individuals and businesses are becoming much more canny about strategies to

get what they want, whether it be skills for work or not. The benefits from formal training are being calculated in a much more sophisticated way. More often than not clear benefits are not found, either in improved income for people or improved productivity for enterprises. The flooding of the market with university graduates and VET trained people removed any market value that qualifications once had, except in very rare circumstances of certain areas of higher education such as object relations computing.

The strategy of large private corporations and government services to reduce to core activities and out-source everything else has largely remained intact despite constant revisions of thinking about what is core activity and some pulling back of outsourced services. Many products and services are provided by an extended pattern of small business or highly specialised businesses. Labour hire firms manage a significant proportion of the resourcing for enterprises.

Attitudes to staff training in most businesses exposed to competition have improved significantly as people are seen as the essential resource of the enterprise, ahead of anything else. However, these businesses are having their specific needs met through specialised fee-for-service training from a range of consultants. In some cases networking between firms with common issues or problems has resulted in them pooling their resources for training. They are taking advantage of the new tax concessions and subsidies now available. Recruitment is from either the pool of experienced labour or from school.

Even high technology export-oriented enterprises have rationalised their employment strategies to an unprecedented degree and they employ only a small core of highly skilled, highly paid staff, with the bulk of workers part-time, casual and term-contracted. These need little training and are easily interchangeable because of technology, including the small but growing application of nano-technology.

Small businesses are reliant on the education system for providing the basic entry-level skills but they look to the labour market for more skilled recruits. New methods in the public training system have made inroads into service provision for small business but the successful strategies have been adopted by private consultants who have captured a major share of the market. Co-operative training networks have also sprung up between small businesses but it is difficult for public providers to successfully manage the public subsidy to small business training with the flexibility these businesses require.

Many unskilled jobs have disappeared and, over the past 10 years, workers have increasingly had to become skilled in the use and development of technology and in adapting to change in their workplaces. However, many workers who missed out on their education are unable to compete for these jobs.

Full-time work has become a minority activity with 70% of people over 21 either unemployed, working intermittently, part-time or casually, with a series of employers, sometimes with several simultaneously. New expressions, 'serial employment' and 'promiscuous employees' have arisen to describe the phenomenon.

The structure of employment has resolved to a core of highly paid specialised staff in enterprises and a periphery of part-time, contract staff who come and go. Loyalty to their employer of the full-time or specialist employee has to be bought through income and inducements like training in exotic locations. The part-time workers have replaced loyalty to employer with the need to hustle for a living, and to other personal interests. There is a rapidly widening range of lifestyles available to, and adopted by, many members of society.

People now have the time and the inclination to adopt the lifestyle appropriate to the situation which they face, mitigated only by the financial resources they have.

The extent to which there is a genuine commitment by people to a lifelong program of education reflects a desire for self-development and an optimisation of personal potential rather than a contribution to the economy or a commitment to meet new workplace practices. This also encompasses an investigation in some depth of the activities people judge, with some professional advice, to be the most important for them personally.

Government education services have diminished significantly following wholesale lifestyle changes being experienced by many and the loss of faith by the community. People have adjusted remarkably successfully to 'portfolio' living and seek a balance between 'work' and 'leisure' although the distinction is becoming far less clear. With the loss of attachment to employer or career, incentives to learn for work have all but disappeared.

The rapid and widespread introduction of new technology in public training services to reduce costs and improve outcomes has produced a paradox of reducing access of the 'information poor', and turning off many others who could no longer fulfil their learning or social needs. Many others, probably the majority of students, have fully embraced the new learning technologies and the opportunities presented. Indeed, as people have become more sophisticated about technology, the world itself has become available to them for learning. This has resulted in a much more competitive world market and a diminished scale of operations in Victoria. The many millions of dollars poured into developing the TAFE brand in the market have been completely wasted, because the market has moved on. There is no customer loyalty in cyberspace.

Part 4 Environmental Analysis

4.1 Introduction

The process adopted for the review of strategic directions included, as a first step, an analysis of the environment in which the training and further education system finds itself. The purpose of the environmental analysis was to meet a specific need – to provide information on factors which might be important drivers of change in training and further education in the longer term, in the context of determining those important and most uncertain elements influencing the long term future, and for developing scenarios. It was not intended to be comprehensive or exhaustive but only to provide sufficient material to stimulate thinking to enable judgements to be made and for implications to be drawn.

A range of issues relating to the internal and external environment at macro and micro levels was considered. The micro forces are concerned with key factors/features in the local environment that will influence success and shape outcomes. The macro issues can include social, economic, political, technological and environmental forces. The important results of the analysis are outlined below.

4.2 External Forces

Why Fund Education and Training?

Governments, firms and individuals fund training because it helps to:

- improve productivity by providing workers and industry with the skills they both need
- improve economic efficiency by allocating human resources between industries, occupations, regions and time, and reduce the costs to the community and individuals of adjustment to structural change
- improve workforce flexibility, adaptability and overall workplace 'literacy'
- assist individuals meet their work, earning and life aspirations.

Much of the impetus behind the increased stress on training and further education in recent years stems from the belief that competitiveness, the efficient use of technology, and improvements in product quality and innovation require an adaptable and broadly skilled workforce.

There is an increasing realisation that in the future Australia will need to depend more on the skill of its people and less on the vast natural wealth of the country. Current trends in public and private training and further education indicate that expenditure is declining and that our expenditure on this form of education lags behind comparable countries.

Policy Context

In the 1980s and 1990s, training and further education has come to be defined in a particular way due to the policies of successive governments. These policies relate specifically to training and further education but also emanate from 'whole of government' approaches. Key aspects of these policies are detailed in Section 4.3 Internal Forces; they include approaches to teaching and learning, and the role of markets and quasi-market mechanisms in government. It is increasingly clear that aspects of this approach are under challenge as an adequate basis for future development.

Recurrent Resources

There have been a number of years of unprecedented growth in funding from all sources, including direct funding from State and Commonwealth governments, student contributions through fees, and fee-for-service activity by providers in a number of areas. Significant efficiencies were also obtained as a result of reduced labour costs. More recently, direct Commonwealth Government funding has ceased to grow and unit costs are likely to increase due to salary increases and quality improvements in services.

Demography

The annual growth rate for Victoria between 1991 and 1996 at 0.6% was half the Australian average. Projections of the growth and the age profile of the Australian and Victorian population to the year 2051 indicate that the population will rise at a lower rate than has been experienced in the past. The population of Victoria is projected to increase by 16% by 2051, well below the Australian average of 44%. Melbourne may slip to Australia's third largest city by 2020.

The growth in the population will be skewed towards older age groups such that 25% of the population is projected to be 65 and over in 2051, against the current 12%. With current levels of fertility and net immigration, the dependency ratio (the proportion of the population under 15 and over 64) could increase from 49% to 55.2% by 2021 and 68.2% by 2051.

Household Income

In the ten years to 1994 the gap between high and low income households widened. Household disposable income increased by 52% in the lowest quintile compared to 71% in the highest quintile. In 1994 the top 20% of households received 40% of total household disposable income, an average of \$1250 a week, as against the bottom 20% of households receiving a 6% share, an average of \$175 a week.

Participation in Education

One response to the intensified competition for jobs has been an increased participation in post-school education which has not been limited to young people who have just left school. At all stages in life, people, especially women, are increasingly participating in post-school education either to increase their existing skills or to retrain for a new job.

Over the past decade, school retention rates across Australia have increased significantly from 48.7% in 1986 to 71.3% in 1996. In Victoria, the retention rate in 1996 was 75.3%. The cohort of 15-24 year olds participating in any education increased from 40.1% in 1986 to 50.3% in 1996.

The relative share of this increase did not translate significantly into TAFE participation but substantially boosted higher education participation rates which nearly doubled in a decade or so to reach 15.5%. In Victoria, the 1996 TAFE participation rate was 12.1%, 2.2% above the average for Australia for that year. Part-time study (less than 540 hours) has been the dominant mode of participation in TAFE in Victoria - 88% of enrolments in 1996. In the higher education sector, the participation rate in Victoria was 17%, as against the national average of 15.5%.

The Labour Force

The structure of the labor force will continue changing over the next decade. Industry growth over the next two decades will continue to be concentrated in the service industries including the finance, health, personal services, retail, and accommodation and restaurant industries. Employment will grow more slowly in many of the manufacturing industries, in line with trends over the recent past.

In August 1997 Victoria's labour force participation rate was 62.7% and the unemployment rate 9.3%. A major feature of the unemployment situation is the high rates noted for those born in countries other than those that are mainly English speaking. Higher rates of youth unemployment have also become persistent.

While the unemployment rate in recent years has tended to stay at 8-9% the proportion unemployed for a year or more has been on the increase. In August 1997 the long-term unemployed constituted 33% of all unemployed, an increase of 3% over 1996. Great difficulty is being experienced by the unemployed over 45 years of age in getting work.

Between 1989 and 1995 the total number of hours worked increased by only 6.4%, reflecting population growth and employment growth rather than productivity growth. Average hours per employed worker have hardly changed, which obscured the fact that there was an increase in the proportion of employed persons working part-time (20.5% in 1989 to 24.5% in 1995) and that more full-time workers were working much longer hours. There has been a substantial increase in the number of part-time workers (+ 27%) since 1989. Between 1991 and 1995 the proportion of casual employment among all employed persons increased by 4% to 24%.

Demand for Training

It is accepted that private market-based decisions by firms and individuals may lead to less than optimum training from a social and economic point of view. This is the basis for government funding for education. The less than optimal investment may arise because of ignorance of the benefits, some benefits accruing to society rather than to individuals or firms, or an inability of individuals to obtain finance to support their studies.

Looking at more than a few years ahead to identify training needs is highly speculative. It is clear that the growth in employment will be in areas which have not been traditional areas of activity of training and further education institutions. At the same time the traditional areas of strength in training and further education will be relatively stagnant, in large part due to restructuring and new technology in manufacturing.

We are often reminded that our dependence on natural resources will diminish in the next century because of changes in the global economy and that Australia will have to live more on its wits. It is arguable that for historical reasons Australia's skill formation processes are not well suited to serve these needs. Expenditure on training by businesses in Australia is comparable to the U.S. In Australia in 1995/96, \$36,656 million was spent on new plant and equipment but, at most, 12% of that amount was spent on structured training [cf. US 10%]. Out of every dollar spent on training in Australia, 40 cents went to managers and professionals, and about 25 cents on trade (10 cents), sales and clerical (10 cents), and plant and machinery operators (6 cents).

Historically speaking, training has been relatively high in the public sector, in large organisations, among the young and where union membership has been high, and has been low among workers in small business, part-time and casual employees and the self employed. Trends show that the former are declining in numbers and the latter increasing, resulting in reduced demand for training.

Over the decades, the shape of our workforce has changed from a manufacturing focus to a service focus. People now enter the workforce later and leave earlier. Those in work will most likely have to undergo several major job changes in life. There is a greater likelihood that people will have periods without work or have a looser attachment to work:

Growth in part-time and casual employment may have the effect of reducing the demand for training. These forms of employment reduce the returns that individuals can expect from further expenditure of money, time and effort in training. Employers are also reluctant to provide training when tenure of workers is short. Employment is currently growing relatively faster in small business because of downsizing and outsourcing by large business. It is unlikely that for the foreseeable future this approach by large business will alter.

Offsetting these trends is the desire of some individuals to improve their circumstances and the fact that most can expect to change occupation and/or industry several times in a working life.

Demand for training by individuals is sensitive to a number of factors. These include:

- the fee structure for training and further education, and higher education
- the income maintenance system, such as the Youth Allowance
- the level of wage subsidies by Government
- parent, student and school attitudes towards training and further education including perceptions as to whether future prospects and earnings will be improved through participation
- ease of access to and flexibility of education systems
- perceptions about the number of jobs available
- the desire for increased job skills and appeal to employers
- the level of government funding, currently falling.

In the longer run, continuing demand for training and further education is problematic because of a convergence of industry and governments reducing funding, and the growing extent of part-time, casual and contractual forms of work, reducing the capacity of individuals to invest in their own training and further education, or the reason to so invest.

4.3 Internal Forces

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Competency Based Training

Introduced in 1992, competency based training (CBT) and assessment was intended to encourage an outcomes focus on training and to free training from a strict adherence to time

served. It focuses on what students need to know and do in the workforce as determined by industry and everyday life, that is competencies.

It appears that industry standards have been developed covering the jobs of 80% of the workforce. About 25% of courses now incorporate national competency standards. A total of 71% of courses incorporate competency standards but whether they are national, state or local is not known. At this time, all assessment is against learning outcomes rather than against competency standards because the assessment systems are not yet in place. The extent to which teaching practice conforms to the requirements of CBT is not known. Based on anecdotal evidence, teaching practice has not fully embraced CBT. The pace of reform has been slow and variable but is picking up in some respects. There is no evidence of improved competence of students or of improved outcomes for students and employers following the introduction of CBT.

Skills Transfer

There are a number of grounds, pedagogical and practical, which suggest that CBT needs to be tempered by other considerations. Research suggests that job skills and competencies are largely contextually determined and workplace specific'. This research suggests that transfer of competence – even key competencies – is limited, for example the 'ability to work in a team' in the context of a sales team in a finance organisation will have limited transferability to the same competency of 'ability to work in a team' for a work team in a manufacturing environment.

The literature on the subject also suggests that:

- narrow behavioural approaches to CBT will not be flexible enough for future skill needs and the range of workplaces
- competencies at the enterprise level should be matched to the strategic goals of an organisation
- accreditation and review of training packages should be frequent enough to allow for changing technologies and work practices.

In addition to these issues, the approach is likely to be hindered by the expense in establishing and maintaining national standards to match technological and other changes in the structure of employment, and by the likelihood that national standards will not be able to reflect local requirements.

There are implications of other trends identified in this paper regarding the nature and structure of employment and the discontinuous career path requiring in the future several major shifts in work – the shift to a lifelong learning approach and the introduction of technology-based instruction which will require re-examination of many of the assumptions underlying CBT. There are contradictions in a system trying to be customer-responsive but with nationally set standards for getting access to the qualifications monopoly and with industry reducing its expenditure on training.

Funding Sources

In the four years to 1996 the TAFE Institutes' revenue increased by 50% to \$743 million.

¹ Billett, S., Cooper, M., Hayes, S., and Parker, H. 1997, *VET Policy and Research: Emerging Issues and Changing Relationships*, OTFE.

Institutes' revenue base primarily represents grants received from State and Federal governments. A slow and steady shift is occurring to include other sources of revenue. During the period 1993-97, the proportion of funding of TAFE Institutes from both Government sources declined from 80% to 74% while the revenue from student fees increased from 3% to 5% and fee-for-service, ancillary training etc increased from 17%-21%.

In the adult community education sector a similar trend towards the revenue from Government sources, complemented by increased capacity to raise funds through other activities such as fee-for-service, has emerged.

Capital

Increasingly, the need for growth in capital facilities is being questioned. Buildings and equipment are becoming obsolete and maintenance, upgrade and replacement costs are high. In many circumstances utilisation rates are low. This is occurring in a time when there is pressure for optimising and rationalising space usage and when new training technologies that are less dependent on classrooms are being developed.

The TAFE Institute building utilisation rate² for the whole of Victoria is 39.7%³ for all delivery⁴. This compares poorly with an international best practice benchmark of 54.9%⁵. There are also significant levels of duplication of training facilities and instances of very small-scale facilities⁶.

Staffing

Between 1993 and 1997 the staff profile of TAFE Institutes changed significantly. There was an overall net reduction in the number of teaching staff due to a reduction in permanent full-time teachers outweighing an increase in the number of contract teaching staff and sessional teaching staff. Non-teaching staff increased even though permanent staff declined. The female to male staff ratio increased from 75% in 1993 to 96% in 1997. Overall, staff numbers increased by just 1%. The pay rates for teaching staff have been declining relative to, and are on average lower than, other education sectors. This may become an issue in the context of adopting new technologies for teaching and learning, training packages and assessment arrangements.

New Technology

Communications and information technology has the potential to enhance training delivery in a variety of ways. For industry clients, individual students, teachers and managers, electronic communication offers greater access, more informed choice and a variety of learning modes to suit individual needs.

It is likely that if scale economies are to be achieved in the future, and it appears likely that resourcing issues will make this necessary, new technologies for training delivery will be required, for example through a much more extensive use of communications technology. Technological based solutions will need to be intrinsic to the provider's core business rather than as an 'add-on', and will lead to a better appreciation of opportunities.

² 52 hours usage per week for 40 weeks per year.

³ Metropolitan usage rates are higher - 34.4% for contracted delivery and 42.1% for all delivery.

⁴ OTFE 1996, North West Study.

⁵ Facilities Analysis and Review, prepared for the Ministerial Review on the Provision of TAFE in Metropolitan Melbourne, 1997.

⁶ Ibid

Underlying this approach is the belief that Victoria must position itself for a much more competitive and volatile environment. Victoria has managed to stay ahead in the national league but with developments in opening up the market, training and further education will come under pressure from other sectors, other States, and possibly more importantly from other countries. There are grounds for thinking that the approaches that have been appropriate in the past will not by themselves provide adequate capacity for change into the future. Trends already emerging are challenging the past approach towards fundamental values – teaching and learning approaches and philosophy, delivery systems, 'customer' value, government accountability and markets, and structural change in industry and across the community at large.